GEMS & ROCKS
COLOR, LINE & SHAPE
I have a feeling that you will want to pick up a paintbrush and join your students when you teach this lesson! There is something magical and calming about drawing and watercoloring simple shapes. With very little effort, line and warm or cool colors are used to create the look of a 3D, faceted gem or the layered surface of a geode.

A Rock is Lively by Dianna Hutts Aston and illustrated by Sylvia Long brings a beautiful perspective to the variety and beauty of rocks and geodes. It was hard to pick just a handful of gems and rocks to use for this lesson because the book’s illustrations are so inspiring.

Science & Nature Connection:
Just like the ingredients in a batch of cookie dough, rocks and gems are a mixture of many different minerals. Instead of flour and sugar, a rock recipe might include copper, diamond, fluorite, nickel, quartz, lead, turquoise, silica…or many other minerals! The three categories of rocks are igneous, sedimentary, and metamorphic.
Draw a contour line (outside) of the gems (polygons) with a waterproof marker on the watercolor paper. Polygonal shapes are made up of triangles and trapezoids so make sure all lines are straight.

Place a series of dots about one inch away from the contour line inside the shape. Dots can be spaced randomly but make sure that there is ample space between each dot.

Connect each corner or angle with each dot. This forms the first layer of triangular shapes inside the gem.

Once the first layer of triangle shapes are created, draw another series of randomly placed dots towards the center. This often makes little sense to a child, but as they work through this project they begin to understand how the shapes are created.

Drawing Guide on page 6
Once all shapes are created inside the gem, select three colors of either warm or cool watercolor paints.

Paint the lightest color first in all areas you wish to see that color.

Paint the next lightest color second. Don't worry too much if the paints mingle. This adds to the interesting details and textures that emerge. Finish with the darkest color.

Add salt to any wet areas.

After the art dries, use a paint brush dipped in metallic paint to trace over the marker lines OR use a metallic marker.
Don’t stop with polygonal gems!

**Geodes**

Geodes are hollow rocks that slowly fill with minerals that crystalize to form beautiful layers that are revealed when the rock is broken in half.

To create these beautiful rocks, you’ll need watercolor paint, watercolor paper, oil pastels, salt and liquid tempera paint.

Here’s what to do:

1. Draw the outline with black oil pastel.
2. With a colored oil pastel, draw two concentric lines inside the contour line.
3. Draw another organic line with a white oil pastel. This time, make the line thick.
4. Use rich jewel tones of watercolor paint to paint the circles. Black on the outer rim and brighter colors on the interior.
5. Sprinkle with salt for a sparkly effect.
6. Splatter with white liquid tempera paint that is watered down to the consistency of cream.
WATERCOLOR GEODES
GEMS & ROCKS DRAWING GUIDE
CREATING

- Generate and conceptualize artistic ideas and work — Combine concepts collaboratively to generate innovative ideas for creating art.
- Organize and develop artistic ideas and work — Demonstrate openness in trying new ideas, materials, methods, and approaches in making works of art and design.
- Refine and complete artistic work — Reflect on whether personal artwork conveys the intended meaning and revise accordingly

PRESENTING/PRODUCING

- Analyze, interpret and select artistic work for presentation — Analyze similarities and differences associated with preserving and presenting two-dimensional, three-dimensional, and digital artwork.
- Develop and refine artistic work for presentation — Individually or collaboratively, develop a visual plan for displaying works of art, analyzing exhibit space, the needs of the viewer, and the layout of the exhibit.
- Convey meaning through the presentation of artistic work — Assess, explain, and provide evidence of how museums or other venues reflect history and values of a community.

RESPONDING

- Perceive and analyze artistic work — Identify and interpret works of art or design that reveal how people live around the world and what they value.
- Interpret intent and meaning in artistic work — Interpret art by distinguishing between relevant and non-relevant contextual information and analyzing subject matter, characteristics of form and structure, and use of media to identify ideas and mood conveyed.
- Apply criteria to evaluate artistic work — Develop and apply relevant criteria to evaluate a work of art

CONNECTING

- Synthesize and relate knowledge and personal experiences to make art — Generate a collection of ideas reflecting current interests and concerns that could be investigated in art-making.
- Relate artistic ideas and works with societal, cultural and historical context to deepen understanding — Analyze how art reflects changing times, traditions, resources, and cultural uses.
I CAN STATEMENTS FOR GEMS AND ROCKS

- Today I will learn about GEMS and ROCKS, so that I CAN create artwork inspired by this varied, natural substance.

- Today I will learn about LINE and SHAPE, so that I CAN draw a rock or gem that is made up of POLYGONAL shapes by using guide dots and straight lines.

- Today I will learn about COLOR, so that I CAN WATERCOLOR my gem or rock by limiting my color palette to either WARM or COOL COLORS.

COMMON CORE STANDARDS FOR GEMS AND ROCKS

CCSS.ELA-Literacy.SL.6.5
Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.
By having students create a work of art inspired by gems and rocks, they are visually developing the main ideas they learned from observing and studying this topic by drawing and painting a gem or rock using line, color and shape.

CCSS.ELA-Literacy.W.6.1
Write arguments to support claims with clear reasons and relevant evidence.
As students complete an artist statement (located in Teacher Aids), they are supporting claims about what their artwork means. This requires them to build their answer based on how they created the work as evidence pointing toward the composition’s meaning.

CCSS.Math.Content.6.G.A.3
Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate.
Apply these techniques in the context of solving real-world and mathematical problems.
As a warm up activity, give your students graph or grid paper. They could label their grid with an x and y axis to tie in this standard of using coordinate planes. Have them select three to five points and label them using (x,y) coordinates. Connect the coordinates to create a polygon.
ASSESSMENT CHECKLIST

MAIN IDEAS FROM:
GEMS AND ROCKS

STUDENT NAME: ______________________

☐ Can the student tell me at least two facts about gems and rocks?

☐ Did the student draw a polygonal gem using guide dots and straight lines?

☐ Did the student limit their color palette to either warm or cool colors?